

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (original): A process for preparing a film or sheet having a glass transition temperature below about 23°C and a melting temperature greater than about 120°C comprising the steps of:

- (a) preparing a polyester composition comprising
 - (i) about 50 to about 95 weight percent of a base copolyester having a melting temperature of less than about 220°C and exhibiting more than about 1 percent crystallinity after annealing for 2000 minutes at a temperature of which the base copolyester has a maximum crystallization rate, and
 - (ii) about 5 to about 50 weight percent of a plasticizer suitable for use with the base copolyester;
- (b) forming the polyester composition into a film or sheet; and
- (c) inducing crystallization during step (b) or after step (b).

Claim 2 (original): The process of claim 1 wherein the film or sheet has a glass transition temperature below about 0°C.

Claim 3 (original): The process of claim 2 wherein the film or sheet has a melting temperature greater than about 140°C.

Claim 4 (original): The process of claim 1 wherein the film or sheet has a melting temperature greater than about 140°C.

Claim 5 (original): The process of claim 1 wherein the polyester composition comprises from about 50 to about 80 weight percent of the base copolyester and from about 20 to about 50 weight percent of the plasticizer.

Claim 6 (original): The process of claim 5 wherein the polyester composition comprises from about 60 to about 75 weight percent of the base copolyester and from about 25 to about 40 weight percent of the plasticizer.

Claim 7 (original): The process of claim 1 wherein the base copolyester comprises

- (i) a diacid component comprising residues of at least about 80 mole percent of a primary diacid selected from the group consisting of terephthalic acid, naphthalenedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid, isophthalic acid and mixtures thereof and
- (ii) a diol component comprising residues of at least about 80 mole percent of at least one primary diol containing 2 to about 10 carbon atoms, based on 100 mole percent of the diacid component and 100 mole percent of the diol component.

Claim 8 (original): The process of claim 7 wherein the diacid component further comprises residues of up to about 20 mole percent of a modifying diacid containing from about 4 to about 40 carbon atoms.

Claim 9 (original): The process of claim 8 wherein the modifying diacid is selected from the group consisting of succinic acid, glutaric acid, adipic acid, suberic acid, sebacic acid, azelaic acid, dimer acid, sulfoisophthalic acid, and mixtures thereof.

Claim 10 (original): The process of claim 7 wherein the primary diol is selected from the group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol and mixtures thereof.

Claim 11 (currently amended): The process of claim 7 wherein the primary diol comprises residues of from about 10 to 100 mole percent 1,4-cyclohexanedimethanol and from ~~0 to~~ 0 to about 90 mole percent ethylene glycol.

Claim 12 (original): The process of claim 11 wherein the primary diol comprises from about 10 to about 40 mole percent 1,4-cyclohexanedimethanol and about 60 to about 90 mole percent ethylene glycol.

Claim 13 (original): The process of claim 12 wherein the plasticizer is present in an amount of about 20 to about 50 weight percent.

Claim 14 (original): The process of claim 7 wherein the diol component further comprises residues of up to about 20 mole percent of a modifying diol selected from the group consisting of 1,3-propanediol, propylene glycol, 1,4-butanediol, 1,5-pentanediol, 1,6-hexanediol, 1,8-octanediol, 2,2,4-trimethyl-1,3-pentanediol, 2,2,4,4-tetramethyl-1,3-cyclobutanediol, 1,3-cyclohexanedimethanol, and polyalkylene glycol.

Claim 15 (original): The process of claim 1 wherein the plasticizer dissolves a 5-mil (.127 mm) thick film of the base copolyester to produce a clear solution at a temperature below 160°C.

Claim 16 (original): The process of claim 1 wherein the plasticizer has a solubility parameter in the range from about 9.5 to about 13.0 cal^{0.5}cm^{-1.5}.

Claim 17 (original): The process claim 1 wherein the plasticizer is an ester based on

- (i) an acid moiety selected from the group consisting of phthalic acid, adipic acid, trimellitic acid, benzoic acid, azelaic acid, terephthalic acid, isophthalic acid, butyric acid, glutaric acid, citric acid and phosphoric acid and
- (ii) an alcohol moiety selected from the group consisting of aliphatic, cycloaliphatic, and aromatic alcohols containing from about 1 to about 20 carbon atoms.

Claim 18 (currently amended): The process of claim 17 wherein the alcohol moiety of the plasticizer is selected from the group consisting of methanol, ethanol, propanol, isopropanol, butanol, isobutanol, stearyl alcohol, lauryl alcohol, phenol, benzyl alcohol, ethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, and diethylene glycol.

Claim 19 (original): The process of claim 1 wherein forming the film or sheet is by melt extrusion.

Claim 20 (original): The process of claim 1 wherein forming the film or sheet is by cast extrusion.

Claim 21 (original): The process of claim 1 wherein inducing crystallization is after step (b) and is by stretching.

Claim 22 (original): The process of claim 1 wherein inducing crystallization is after step (b) and is by annealing at a temperature greater than the glass transition temperature of the film and less than melting temperature of the base copolyester.

Claim 23 (original): The process of claim 1 wherein forming the sheet and inducing crystallization occur during step (b) by calendering or blown film extrusion.

Claim 24 (currently amended): A process for preparing a film or sheet comprising the steps of:

- (a) preparing a polyester composition comprising
 - (i) about 50 to about 80 weight percent of a base copolyester having a melting temperature of less than about 220°C and a glass transition temperature of greater than about 60°C and exhibiting more than about 1 percent crystallinity after annealing for 2000 minutes at a temperature of which the base copolyester has a maximum crystallization rate, and

(ii) about 20 to about 50 weight percent of a plasticizer suitable for use with the base ~~copolyester~~, copolyester,

(b) forming the polyester composition into a film or sheet; and

(c) inducing crystallization during step (b) or after step (b);

and wherein after step (c) the film or sheet has a glass transition temperature below about 23°C and a melting temperature greater than about 140°C.

Claim 25 (original): The process of claim 24 wherein the base copolyester comprises a diacid component comprising residues of at least about 80 mole percent of a primary diacid selected from the group consisting of terephthalic acid, naphthalenedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid, isophthalic acid and mixtures thereof and a diol component comprising residues of about 10 to about 40 mole percent 1,4-cyclohexanedimethanol and about 60 to about 90 mole percent ethylene glycol, based on 100 mole percent of the diacid component and 100 mole percent of the diol component.

Claim 26 (currently amended): The process of claim 24 wherein the plasticizer is selected from the group consisting of neopentyl glycol dibenzoate, diethylene glycol dibenzoate, butyl benzyl phthalate; ~~and texanol~~ TEXANOL benzyl phthalate.

Claim 27 (original): A film or sheet having a glass transition temperature below about 23°C and a melting temperature greater than about 120°C and comprising a polyester composition comprising

(a) about 50 to about 95 weight percent of a base copolyester having a melting temperature of less than about 220°C and exhibiting more than about 1 percent crystallinity after annealing for 2000 minutes at a temperature of which the base copolyester has a maximum crystallization rate and

(b) about 5 to about 50 weight percent of a plasticizer suitable for use with the base copolyester.

Claim 28 (currently amended): The film or sheet of claim 27 wherein the base copolyester is present from about 50 to about 80 weight percent and the plasticizer is present from about 20 ~~mole-weight~~ percent to about 50 weight percent.

Claim 29 (original): The film or sheet of claim 27 wherein the base copolyester comprises

(i) a diacid component comprising residues of at least about 80 mole percent of a primary diacid selected from the group consisting of terephthalic acid, naphthalenedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid, isophthalic acid and mixtures thereof and

(ii) a diol component comprising residues of at least about 80 mole percent of at least one primary diol containing 2 to about 10 carbon atoms, wherein the diacid component is based on 100 mole percent and the diol component is based on 100 mole percent.

Claim 30 (original): The film or sheet of claim 29 wherein the diacid component comprises residues of up to about 20 mole percent of a modifying diacid containing from about 4 to about 40 carbon atoms.

Claim 31 (original): The film or sheet of claim 30 wherein the modifying diacid is selected from the group consisting of succinic acid, glutaric acid, adipic acid, suberic acid, sebacic acid, azelaic acid, dimer acid, and sulfoisophthalic acid.

Claim 32 (original): The film or sheet of claim 29 wherein the primary diol is selected from the group consisting of ethylene glycol, diethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol and mixtures thereof.

Claim 33 (original): The film or sheet of claim 29 wherein the primary diol comprises residues of about 10 to 100 mole percent 1,4-cyclohexanedimethanol and 0 to about 90 mole percent ethylene glycol.

Claim 34 (original): The film or sheet of claim 33 wherein the primary diol comprises from about 10 to about 40 mole percent 1,4-cyclohexanedimethanol and about 60 to about 90 mole percent ethylene glycol.

Claim 35 (original): The film or sheet of claim 29 wherein the diol component comprises residues of up to about 20 mole percent of a modifying diol selected from the group consisting of 1,3-propanediol, propylene glycol, 1,4-butanediol, 1,5-pentanediol, 1,6-hexanediol, 1,8-octanediol, 2,2,4-trimethyl-1,3-pentanediol, 2,2,4,4-tetramethyl-1,3-cyclobutanediol, 1,3-cyclohexanedimethanol, and polyalkylene glycol.

Claim 36 (original): The film or sheet of claim 27 wherein the plasticizer dissolves a 5-mil thick film of the base copolyester to produce a clear solution at a temperature below 160°C.

Claim 37 (original): The film or sheet of claim 27 wherein the plasticizer has a solubility parameter in the range from about 9.5 to about 13.0 cal^{0.5}cm^{-1.5}.

Claim 38 (original): The film or sheet of claim 27 wherein the plasticizer is an ester based on

- (i) an acid moiety selected from the group consisting of phthalic acid, adipic acid, trimellitic acid, benzoic acid, azelaic acid, terephthalic acid, isophthalic acid, butyric acid, glutaric acid, citric acid and phosphoric acid and
- (ii) an alcohol moiety selected from the group consisting of aliphatic, cycloaliphatic, and aromatic alcohols containing from about 1 to about 20 carbon atoms.

Claim 39 (currently amended): The film or sheet of claim 38 wherein the alcohol moiety of the plasticizer is selected from the group consisting of methanol, ethanol, propanol, isopropanol, butanol, isobutanol, stearyl alcohol, lauryl alcohol, phenol, benzyl

alcohol, ethylene glycol, neopentyl glycol, 1,4-cyclohexanedimethanol, and diethylene glycol.

Claim 40 (original): The film or sheet of claim 27 wherein the film or sheet has a glass transition temperature below about 0°C.

Claim 41 (original): The film or sheet of claim 40 wherein the film or sheet has a melting temperature greater than about 140°C.

Claim 42 (original): The film or sheet of claim 27 wherein the film or sheet has a melting temperature greater than about 140°C.

Claim 43 (original): A film or sheet having a glass transition temperature below about 23°C and a melting temperature greater than about 140°C and comprising a polyester composition comprising

(a) about 50 to about 80 weight percent of a base copolyester having a melting temperature of less than about 220°C and a glass transition temperature of greater than about 60°C and exhibiting more than about 1 percent crystallinity after annealing for 2000 minutes at a temperature of which the base copolyester has a maximum crystallization rate, and

(b) about 20 to about 50 weight percent of a plasticizer suitable for use with the base copolyester.

Claim 44 (original): The film or sheet of claim 43 wherein the base copolyester comprises a diacid component comprising residues of at least 80 mole percent of a primary diacid selected from the group consisting of terephthalic acid, naphthalenedicarboxylic acid, 1,4-cyclohexanedicarboxylic acid, isophthalic acid and mixtures thereof and a diol component comprising residues of about 10 to about 40 mole percent 1,4-cyclohexanedimethanol and about 90 to 60 mole percent ethylene

glycol, wherein the diacid component is based on 100 mole percent and the diol component is based on 100 mole percent.

Claim 45 (currently amended): The film or sheet of claim 44 wherein the plasticizer is selected from the group consisting of neopentyl glycol dibenzoate, diethylene glycol dibenzoate, butyl benzyl phthalate; ~~and texanol~~ TEXANOL benzyl phthalate.